AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Original) A catalytic vapor phase oxidation process, comprising:

(A) providing an oxidation reactor comprising a plurality of contact tubes disposed in a reactor shell, the inside of the reactor shell being divided into at least first and second heat transfer zones through each of which a heat transfer medium passes; each of said contact tubes containing at least two sequentially disposed oxidation catalysts, said at least two oxidation catalysts being jointly capable of effecting the oxidation of a reactive hydrocarbon to a product gas comprising (meth)acrylic acid, a first oxidation catalyst in said sequence being capable of effecting the oxidation of a reactive hydrocarbon to (meth)acrolein and being substantially located in that portion of each contact tube in contact with the first heat transfer zone, a second oxidation catalyst in said sequence being capable of effecting the oxidation of (meth)acrolein to (meth)acrylic acid and being substantially located in that portion of each contact tube in contact with the second heat transfer zone; said contact tubes containing said at least two oxidation catalysts being packed with said at least two oxidation catalysts in such a manner so as to provide a peak-to-salt temperature sensitivity of not more than 9°C; and

(B) feeding a reactant composition comprising

(i) at least one reactive hydrocarbon, and

(ii) oxygen

into said oxidation reactor, at a reactive hydrocarbon space velocity of from 135 hr^{-1} to 300 hr^{-1}, to contact said reactant composition with said at least two oxidation catalysts to form a product gas comprising (meth)acrylic acid;

wherein, when said portion of each contact tube in contact with the first heat transfer zone comprises a plurality of sequentially disposed reaction zones, the temperature differential, T_{SR1} - T_{IP1}, between the temperature of each subsequent

reaction zone, T_{SR1}, and the temperature of its immediately preceding reaction zone, T_{IP1}, is less than +5°C;

wherein, when said portion of each contact tube in contact with the second heat transfer zone comprises a plurality of sequentially disposed reaction zones, the temperature differential, T_{SR2} - T_{IP2}, between the temperature of each subsequent reaction zone, T_{SR2}, and the temperature of its immediately preceding reaction zone, T_{IP2}, is less than +5°C.

Claims 2-12 (Cancelled).